

In the Claims:

1. (Currently amended.) A method Method for preparing a mineral melt for the production of mineral fibres, in particular rock wool for the production of insulating materials for thermal, acoustical and fire protection, of stock culture substrates, reinforcement fibres and fibres for filtering purposes, in which method a mixture is prepared at least from 38 to 64 % by weight of industrial residual materials as well as with 5 to 45 % by weight of correction materials for regulating the required composition and viscosity of the melt melt, said residual materials and said correction materials are reduced in size and compacted together with a bonding agent to form moulded pieces and which are supplied to a melting unit, ~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that wherein the components of the moulded pieces, particularly the correction materials and/or other components of the meehanical mixture are at least partially substituted by include 2 to 25 % by weight of granular combustion residues, in particular ashes or slags form the combustion preferably of lignite and/or coal dusts, paper sludge or wood chips residues.

2. (Currently amended.) The method Method according to claim 1, ~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said residual materials ~~eonsist of~~ are selected from the group consisting of solidified melts, separated spherical or spiky glass particles and/or defective or recycled products, filter dusts from the manufacturing process, mechanical mixture residues and parts of a fire-resistant furnace lining.

3. (Currently amended.) The method Method according to claim 1, ~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said residual materials are reduced in size and mixed with the correction materials as well as the bonding agent.

4. (Currently amended.) The method Method according to claim 1, ~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said moulded pieces are fed to the melting unit together with extrusive rocks like for example basalt and/or diabase and/or furnace slags.

5. (Currently amended.) The method Method according to claim 1,

~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said combustion residues are produced by a fluidized-bed combustion.

6. (Currently amended.) The method Method according to claim 1,
~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said combustion residues are of fine or extra fine-grained, in particular with a grain size < 0.05 mm fine grain size.

7. (Currently amended.) The method Method according to claim 1,
~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said combustion residues have the following composition:

SiO ₂	12 to 46% by weight
Al ₂ O ₃	8 to 20 % by weight
TiO ₂	0.2 to 2 by weight
Fe ₂ O ₃	1 to 11 % by weight
MgO	1 to 10 % by weight
CaO	8 to 31 % by weight
K ₂ O	1 to 3 % by weight
Na ₂ O	0.2 to 1.5% by weight
SO ₃	2 to 15% by weight
others	< 2 % by weight

8. (Currently amended.) The method Method according to claim 1,
~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said moulded pieces contain inorganic cement bonding agents, in particular cement moieties of 9 to 15 % by weight.

9. (Currently amended.) The method Method according to claim 1, ~~e-h-a-r-a-c-t-e-r-i-z-e-d i-n~~ characterized in that said correction materials are substituted by combustion residues to an extent of 2 to 25 % by weight, ~~in particular to an extent of 2 to 5 % by weight~~.

10. (Currently amended.) The method ~~Method~~ according to claim 1, ~~e-h-a-r-a-e~~
~~t-e-r-i-z-e-d-i-n~~ characterized in that said correction materials are selected from the group
consisting eonsist of granular materials, ones, ~~for example haematite or magnetite and/or and~~
residual materials from the power plant and/or metal producing and working industries ~~and are~~
~~contained to an extent of 20 to 50 % by weight in said moulded pieces.~~

11. (Currently amended.) The method ~~Method~~ according to claim 1, ~~e-h-a-r-a-e~~
~~t-e-r-i-z-e-d-i-n~~ characterized in that said correction materials have a grain size of 0 to 20 mm, ~~in~~
~~particular 3 to 7 mm.~~

12. (Currently amended.) The method ~~Method~~ according to claim 1, ~~e-h-a-r-a-e~~
~~t-e-r-i-z-e-d-i-n~~ characterized in that said correction materials include alkaline earth materials for
viscosity reduction and/or Al₂O₃ for increasing the biosolubility.

13. (Currently amended.) The method ~~Method~~ according to claim 1, ~~e-h-a-r-a-e~~
~~t-e-r-i-z-e-d-i-n~~ characterized in that said combustion residues contain components from ~~from~~ a
flue gas desulphurization.

14. (New.) The method according to claim 4, wherein the extrusive rocks are
selected from the group consisting of basalt, diabase and furnace slags.

15. (New.) The method according to claim 6, wherein said combustion
residues have a grain size less than or equal to 0.05 mm.

16. (New.) The method according to claim 1, wherein the granular combustion
residues consist of ashes or slags from the combustion of lignite and/or coal dusts, paper sludge
or wood chips.

17. (New.) The method according to claim 8, wherein the amount of inorganic
bonding agents in said moulded pieces is between from 9 to 15 percent by weight.

18. (New.) The method according to claim 10, characterized in that said correction materials are haematite or magnetite.

19. (New.) The method according to claim 10, characterized in that said moulded pieces contain between from 20 to 50 % by weight of said correction materials.

20. (New.) The method according to claim 11, characterized in that said correction materials have a grain size between from 3 to 7 mm.